CLAIMS

I claim,

- A method for measuring the water content within a plant comprising the steps of:
 placing a sensor surface in any gravitation orientation within said plant,
 placing a second electrode in the root environment,
 measuring the area of said sensor surface within said plant,
 measuring the electrical capacitance between a first wire connected to
 said sensor surface and a second wire connected to said second
 electrode in said root environment,
- forming the ratio of said electrical capacitance to said area of said surface.
- 2. Apparatus for measuring the water content within a plant comprising: sensor surface means for making contact within said plant, second electrode means for making contact with the root environment, first wire means connected to said sensor surface means, second wire means connected to said second electrode means,

means coupled to said first wire means and said second wire means for measuring the electrical capacitance generated therebetween by said plant.,

area means for measuring area of said sensor surface within said plant.

3. Apparatus as recited in claim 2 further including a plurality of sensor surface means and means interposed between each of said sensor surface means and said measuring means for selectively connecting each one of the said sensor surface means to said measuring means.